

Claim 34 (Amended) An isolated nematode major sperm protein domain, comprising: a polypeptide including about 125 consecutive amino acids of a nematode major sperm protein, wherein the domain stimulates a female sexual maturation.

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Claim 35 (Amended) The major sperm protein domain of Claim 34, wherein the polypeptide includes a segment having at least 10 consecutive amino acids to 20 consecutive amino acids of the nematode major sperm protein, wherein the segment stimulates a sheath cell contraction.

Claim 36 (Amended) The major sperm protein domain of Claim 34, wherein the polypeptide includes a segment having 10 to 30 amino acids of the nematode major sperm protein, wherein the segment stimulates a sheath cell contraction.

Claim 37 (Amended) An isolated nematode major sperm protein domain, comprising: a polypeptide including about 125 consecutive amino acids as set forth in SEQ ID NO:2 or nematode major sperm protein alignment variants thereof, wherein the domain stimulates a female sexual maturation.

Claim 38 (Amended) The major sperm protein domain of Claim 37,
wherein the polypeptide includes a segment having at least 10 consecutive amino
acids to 20 consecutive amino acids, wherein the segment stimulates a sheath cell
contraction.

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cont.

Claim 39 (Amended) The major sperm protein domain of Claim 37,
wherein the polypeptide includes a segment having 10 to 30 amino acids, wherein
the segment stimulates a sheath cell contraction.